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### MENSTRUATION AND CRIME

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It has been shown that during menstruation a deterioration occurs both in a schoolgirl's work and in her behaviour (Dalton, 1960a, 1960c), and it is also at this time that women are most liable to be involved in accidents (Dalton, 1960b) or to be admitted to hospital with an acute psychiatric illness (Dalton, 1959). This gradual recognition of the social significance of menstruation in the various aspects of a woman's life has led to an investigation of the importance of the menstrual factor in crime.

Over a period of six months in one of H.M. Prisons I interviewed all newly convicted women below the age of 55 on the first weekday after their sentence. The prisoners were asked their age, parity, duration of menstruation, length of cycle, date of last menstruation, and whether they observed any symptoms before or during menstruation. A similar interview was arranged for all prisoners who had been reported to the governor for bad behaviour while serving their sentence.

# Results

Of the 386 newly convicted prisoners, 284 (74%) were menstruating regularly and 156 (41%) had committed their offence during the previous 28 days. Table I shows the distribution of the menstrual history of the newly convicted prisoners.

TABLE I.—Menstrual History of 386 Criminal Women Regular menstruation 284 Offence committed within 28 days
More than 28 days since offence
Unable to recall date of last menses 102 Amenorrhoea 38 28 4 Probably pubertal pregnant Puerperal . . Menopause Natural 64 48 16

In analysing the results, the method used was that described in previous surveys into the relationship of menstruation to acute psychiatric illness (Dalton, 1959)

Natural ...

and accidents (Dalton, 1960b). The menstrual cycle was divided into seven four-day periods, in which Days 1-4 represented menstruation and Days 25-28 the premenstruum. The relationship of the date of offence to menstrual cycle in the 156 women who committed their offences during the previous 28 days is shown in Table II.

Nearly half of all crimes (49%) were committed by women during menstruation or in the premenstruum. On a normal distribution, only two-sevenths (29%) of all crimes would be expected during this period of eight days. The probability of a distribution, such as has been found, occurring by chance is less than one in a thousand ( $\chi^2 = 12.7$  on 1 d.f.) and therefore suggests that the association between menstruation and crime is highly significant.

TABLE II.—Time of Crime of 156 Regularly Menstruating Women

Day of Cycl	e No.	%
5-8 9-12 13-16 17-20 21-24	41 13 20 21 19 7 35	26·3 8·3 12·8 13·5 12·2 4·5 22·4
Total	156	100

Menstruation seems of greater importance in crimes of theft: 56% of such crimes occurred during menstruation and the premenstruum, whereas for prostitution the figure was 44% (Table III). Seven of the

TABLE III.—Crimes Committed During Menstruation and Premenstruum

Type	Crimes during Menstruation and Premenstruum		Total Crimes	χ² on 1 D.F.	Probability
	No.	1 %			
All crimes Theft Prostitution Alcoholism First offence 2nd and 3rd offences 4 or more offences	76 36 34 7 21 25 19	48·7 56·3 43·6 53·8 51·2 49 47·5	156 64 78 13 41 51 40	30·9 18·5 8·6 10·3 10·4 7·0	<0.001 <0.001 <0.01 * <0.001 <0.001 <0.05

\* Too few to determine probability.

13 (54%) alcoholics were sentenced at this time. "Theft" is used here to include all offences against another's property-for example, shoplifting, burglary, "Prostitution" covers those embezzlement, forgery. convicted under the Street Offences Act, 1959. "Alcoholism" covers those found drunk and disorderly in public places and refusing, or unable, to pay the fine. Menstruation is also of greater importance among first offenders than among those with more than three previous convictions. It was noted that nulliparous women were most liable to commit their offences during the premenstruum and the parous women during menstruation; this is similar to the difference in accident proneness among nulliparous and parous women (Dalton, 1960b).

The dates of conviction of those 102 women who menstruated regularly and whose crime had been committed more than 28 days previously were evenly distributed throughout the menstrual cycle. It would appear, therefore, that menstruation had no prejudicial effect on those women during their appearance in court.

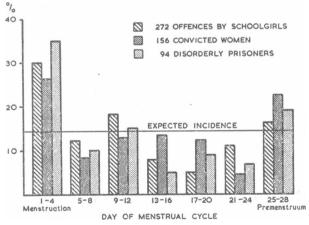
"Premenstrual tension" was defined as mood changes, headaches, tiredness, bloatedness, or mastitis during the premenstruum, and "dysmenorrhoea" was defined as pain during menstruation. Premenstrual tension was present among 43 (27%) of the 156 prisoners whose offences had occurred during the previous menstrual cycle, and 27 (63%) of these 43 women had committed their crime during the time of their symptoms. Premenstrual tension was more common among those sentenced for theft (29%) than among the prostitutes (19%); in fact, the incidence of premenstrual tension among prostitutes is probably below that for women generally. Dysmenorrhoea was present in only 22 of the 156 prisoners (14%) who had committed their crime during the previous menstrual cycle, and these 22 prisoners had a normal distribution of crime throughout the menstrual cycle.

Among the prisoners reported for bad behaviour were 94 who were menstruating regularly, and 51 (54%) of these were disorderly during menstruation or the premenstruum. Among the 54 prisoners reported only once, 43% were associated with menstruation, whereas among the 40 prisoners reported more than once, 70% were associated with menstruation. This is similar to the observation among schoolgirls that the adverse effect of menstruation was greatest among those with most offences (Dalton, 1960c).

In cases where the reported prisoner suffered from premenstrual tension and had been disorderly during this time, the prisoner was offered the opportunity of treatment for premenstrual tension.

#### Discussion

The marked similarity of the effect of menstruation on naughty schoolgirls, newly convicted women, and disorderly prisoners is shown in the Chart. The offences



Times of offences during menstrual cycle.

for which the naughty schoolgirls were punished were petty and might be committed by any law-abiding citizen—for example, talking when silence is requested, lateness, forgetfulness—and would appear to be an altogether different type from those crimes for which a prison sentence is passed, or the offences for which a prisoner is reported to the governor. The hormonal changes of menstruation probably make the individual less amenable to discipline.

The analysis shows that there is a highly significant relationship between menstruation and crime. This could mean that the hormonal changes cause women to commit crime during menstruation and the premenstruum and/or that women are more liable to be detected in

their criminal acts during this time. The adverse effect of menstruation was greatest among sufferers of premenstrual tension, with its concomitant symptoms of lethargy, slower reaction time, and mental dullness; and these factors would lead to easier detection during certain days of the menstrual cycle, especially among habitual law-breakers-for example, prostitutes and shoplifters. Premenstrual tension is also accompanied by irritability, lethargy, depression, and water retention, and these symptoms alone may be responsible for certain crimes—for example, irritability and loss of temper may lead to violence and assault, lethargy may lead to child neglect, and depression to suicide (still a crime at the time of investigation). If water retention is present in an alcoholic, then alcohol retention tends to occur, increasing the liability for the woman to become drunk and disorderly.

One alcoholic aged 45 years, with numerous previous sentences, described how she usually started menstruating during her stay in the police cell or first day in prison and also how alcohol had a more deleterious effect on her during this time, yet she sought solace in alcohol when she became depressed.

These findings again emphasize the need for a simple test for the presence of premenstrual tension. Unfortunately, the severity and type of symptom may vary from month to month and symptoms increase at times of stress, thereby adding to the difficulties of diagnosis. Premenstrual tension responds to treatment, but such treatment would need to be continued after the expiration of the prison sentence if any improvement in criminal tendency is to be expected; this suggests the need for such women being placed on probation subject to regular medical supervision.

### **Summary**

An investigation carried out in a women's prison revealed that almost half the women committed their crime during menstruation or the premenstruum. Premenstrual tension appears to be an important factor, and 63% of the sufferers committed their crime at the time of their symptoms.

I wish to thank the Governor and members of the Prison Medical Service for their co-operation and helpful suggestions. This paper is published with permission of the Prison Commission though it does not necessarily represent their views.

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In order to help assess the suitability of background music for hospitals, the King Edward's Hospital Fund for London has undertaken to pay for trials in which six London hospitals are co-operating. For a period of six months background music will be provided in different areas in these hospitals, including an out-patient waiting-hall, casualty department, radiography waiting area, antenatal clinic, and a linen-room, as well as in male and female wards, where the continuous background music will be available through headphones for 24 hours a day, if required. The hospitals concerned have agreed to prepare reports on the trials at the end of six months.